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Patent Claims

1. Method for manufacturing components, in particular for bicycles and the like, comprising the following steps:
 - providing a winding device comprising at least a first shaping device;
 - applying a predetermined quantity of fibers on said first shaping device;
 - applying at least a first cross-linking agent to at least part of the fibers;
 - inserting said first shaping device into a second shaping device;
 - spacially expanding of said first shaping device including at least said fibers and at least said first cross-linking agent toward said second shaping device, wherein said shaping devices are matched to one another such that an expanded body comprising the fibers and the cross-linking agent exhibits a substantially uniform thickness;
 - removing the expanded body from said second shaping device.
2. The method of claim 1, **characterized in that** the distance between said first shaping device and said second shaping device is substantially constant prior to expansion of said first shaping device.
3. The method of claim 1, **characterized in that** in a further process step said first shaping device is removed from the expanded body.

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4. The method of claim 1, **characterized in that** prior to depositing the fibers, said first shaping device is pushed onto a core that preferably contains a metal.
5. The method of claim 4, **characterized in that** after depositing the fibers, said core containing a metal is removed from said first shaping device.
6. The method of claim 1, **characterized in that** said first shaping device at least partially consists of a flexible material.
7. The method of claim 1, **characterized in that** expansion of said first shaping device is effected by varying at least one thermodynamic state variable, preferably the temperature or the pressure.
8. The method of claim 1, **characterized in that** said second shaping device comprises at least two shaping elements with internal contours that are substantially symmetrical relative to each other.
9. The method of claim 1, **characterized in that** elevation of the temperature causes the fibers to cross-link with the cross-linking agent.
10. The method of claim 1, **characterized in that** the fiber comprises a material selected from a group of materials including carbon, glass, aramide, polyester, Diolen and the like.
11. The method of claim 1, **characterized in that** the fiber is joined to form a fiber fabric which is wound around said first shaping device.
12. The method of claim 1, **characterized in that** the cross-linking agent is selected from a group of cross-linking

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agents including resins such as epoxy resins, polyurethane, polyester, vinylester and the like.

13. Method for manufacturing a hub, in particular for bicycles and the like, comprising the following steps:
 - providing a third shaping device;
 - depositing a predetermined quantity of fibers on said third shaping device;
 - applying at least a second cross-linking agent to at least part of said second fibers;
 - inserting said third shaping device into a body blank and bonding at least said second fibers and said second cross-linking agent with said body blank.
14. The method of claim 13, **characterized in that** said body blank is said expanded body.
15. The method of claim 13, **characterized in that** elevation of the temperature causes the fibers to cross-link with the cross-linking agent.
16. The method of claim 13, **characterized in that** in a further process step, the expanded body and said third shaping device with said second fibers are clamped to each other.
17. The method of claim 13, **characterized in that** said third shaping device has an outer contour that substantially corresponds to the inner contour of the hub to be manufactured.
18. The method of claim 13, **characterized in that** the fiber comprises a material selected from a group of materials including carbon, glass, aramide, polyester, Diolen and the like.

19. The method of claim 13, **characterized in that** the fibers are joined to form a fiber fabric which is wound around said third shaping device.
20. The method of claim 13, **characterized in that** said cross-linking agent is selected from a group of cross-linking agents including resins such as epoxy resins, polyurethane, polyester, vinylester and the like.
21. Method for manufacturing a hub for bicycles and the like, comprising the following steps:
- providing a winding device comprising at least a first shaping device;
 - applying a predetermined quantity of fibers on said first shaping device;
 - applying at least a first cross-linking agent to at least part of the fibers;
 - inserting said first shaping device into a second shaping device;
 - spacially expanding of said first shaping device with at least said fibers and at least said first cross-linking agent toward said second shaping device, wherein said shaping devices are matched to one another such that an expanded body comprising the fibers and the cross-linking agent exhibits a substantially uniform thickness;
 - removing said expanded body from said second shaping device.
22. A hub, in particular for bicycles and the like, **characterized in that** said hub exhibits an external body having a substantially uniform thickness.

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23. The hub of claim 17, **characterized in that** said hub has openings at its end portions that are substantially equally spaced apart from each other in the peripheral direction.